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FEDERAL COMMUNICATIONS COMMISSION  
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**FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY**

## Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies

ET Docket No. 92-9

U S WEST Communications files these comments in support of the  
Compromise Plan submitted by Alcatel Network Systems on May 20, 1993.<sup>1</sup>

Optical fiber is increasingly becoming the transmission medium of choice for many common carriers. However, point-to-point microwave will continue to play a critical role in the provision of telecommunications ser-

crowave and, therefore, it has a keen interest in the outcome of this proceeding.

The most substantive reallocation proposals before the Commission have been submitted by equipment manufacturers: the so-called Joint Commenter Plan,<sup>3</sup> and Alcatel's recently filed Compromise Plan.<sup>4</sup> U S WEST has carefully evaluated each plan from its perspective as a common carrier and a major user of point-to-point microwave. Based on this review, U S WEST has determined that the Compromise Plan submitted by Alcatel is, both overall and in its details, far superior to the Joint Commenter Plan. While there are many benefits to the Compromise Plan, three are of particular interest to a common carrier microwave user such as U S WEST:

- The Compromise Plan accommodates high system gain 2-DS3 radios; the Joint Commenter Plan does not;
- The Compromise Plan provides more options for system expansion compared to the Joint Commenter Plan; and

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<sup>3</sup>See Joint Comments of Harris Corporation-Farion Division, Digital Microwave Corporation, and TeleSciences, Inc., ET Docket No. 92-9 (Dec. 11, 1992)("Joint Commenters"). U S WEST does not comment separately on the comments of the Telecommunications Industry Association because they were "virtually identical, word for word," to those submitted by the Joint Commenters. See Joint Reply Comments of Western Multiplex, Burlington Northern Railroad, and Colorado Interstate Gas at 4 (Jan. 25, 1993). U S WEST does find it odd, however, that the TIA, purportedly an industry association, submitted comments in support of some of its members and in opposition to others.

<sup>4</sup>See note 1 *supra*. Alcatel deserves the industry's and the Commission's gratitude and commendation for having raised these important issues in the first instance and for having submitted such a detailed proposal for industry comment. See Alcatel Petition for Rule Making, RM-8004 (May 22, 1992). It is unfortunate that some vendors have used this laudable effort to inject competitive issues that have no place in the technical matters under discussion.

- The Compromise Plan proposes a more efficient use of spectrum compared to the Joint Commenter Plan.

There are two other matters which U S WEST also addresses below: the Joint Commenter proposal to impose on common carriers restrictive and unnecessary loading requirements on their high capacity systems, and the critical need for this Commission to resolve promptly the issues before it.

**1. Two-DS3 Capacity Radios Must Be Accommodated In Any Plan Adopted.** One of the most common radios U S WEST uses in the 6 and 11 GHz bands is the 2-DS3 capacity digital radio system. The Compromise Plan would continue to accommodate these systems in 30 MHz of bandwidth; the Joint Commenter Plan proposes a minimum capacity of 3-DS3's in 30 MHz and, as such, would preclude continued use of 2-DS3 systems.<sup>5</sup>

The Joint Commenters do not explain their reasoning for their exclusionary proposal, but there are at least two problems with it.<sup>6</sup> First, many of U S WEST's microwave applications do not require 3-DS3 capacity. If the Joint Commenter's exclusionary proposal were adopted, U S WEST would be forced to purchase more expensive 3-DS3 equipment for capacity it does not need. Both 2-DS3 and 3-DS3 equipment use the same amount of spectrum. Consequently, the only beneficiaries of the Joint Commenter

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<sup>5</sup>See Joint Comments, note 3 *supra*, at 19.

<sup>6</sup>At least to U S WEST's knowledge, none of the Joint Commenters currently manufactures 2-DS3 capacity systems. It would appear that Alcatel, which does manufacture these systems, and U S WEST, which uses these systems extensively, are in a better position to address the merits of this particular issue.

g.....j.....f o DGO .....d.....o DGO .....l.....

nels may be combined into a wider channel.<sup>8</sup> Among other things, concatenation would promote flexibility in defining new channelization plans without requiring a lengthy petition process through the Commission, would reduce the Commission's workload, and would provide to users a more cost-effective method for upgrading their digital radios.

The Joint Commenters oppose the Commission's proposal, apparently preferring that users grow their systems by purchasing new equipment (*e.g.*, more complex modulators). Specifically, they oppose concatenation on the ground that it would supposedly result in an unacceptably large number of different channel bandwidths.<sup>9</sup> But this concern is addressed by the proposal in the Compromise Plan that all channels to be concatenated must have equal bandwidths.

It is understandable why some vendors might prefer that users always increase their capacity by purchasing more complex modulators, even though this would involve additional expense and result in degraded performance. Users, and common carriers in particular, should have the flexibility to use concatenation, as it often represents a more cost-effective means of growing their systems. There is no reason to deprive common carriers from pursuing this option, particularly when contiguous channels are available and when carriers need the higher path reliability afforded by less complex modulation schemes.

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<sup>8</sup>See Further Notice of Proposed Rulemaking, 7 FCC Rcd 6100, 6114 (Sept. 4, 1992), Proposed Section 21.122(a)(2) ("For all bands, concatenation of multiple contiguous channels is permitted.").

<sup>9</sup>See Joint Commenter Ex Parte Notice, ET Docket No. 92-9, Appendix A at 3 (April 7, 1993).

**3. The Channelization Plan Proposed By Alcatel Is More Efficient Than That Proposed By The Joint Commenters.** The channelization plan proposed by the Joint Commenters has several serious flaws. Most notably, their proposed narrowband 3.75 MHz channels can often block two 5 MHz and/or two 10 MHz channels. Adoption of this proposal would permit, for instance, an 8-DS1 system (192 voice channel equivalent) to block a 2-DS3 system (1,344 voice channel equivalent). This makes no sense, and adoption of the channelization plan proposed in the Compromise Plan would eliminate this wasteful use of spectrum.

**4. Unnecessary Loading Requirements Should Not Be Imposed On Common Carriers, Especially When They Would Create New Burdens For The Commission And Carriers Alike.** The Joint Commenters propose that no loading requirements should be imposed on users of the narrowband equipment they manufacture, but that such requirements should be imposed on users of the wideband equipment they do not manufacture. Specifically, the Joint Commenters propose that "[w]ideband applicants should be required to demonstrate a need for initial channel loading of at least 50 percent of capacity."<sup>10</sup> They further recommend that auditors, be they Commission employees or from independent firms, audit the use of the requested frequencies "in congested areas."<sup>11</sup>

The concern underlying this proposal is warehousing. While U S WEST does not possess the facts necessary to address the subject of ware-

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<sup>10</sup>Joint Commenters, note 3 *supra*, at 12.

<sup>11</sup>*Ibid.* See also TIA Comments, note 3 *supra*, at 10.

housing in the context of private microwave users, the fact is, as the Commission is fully aware, warehousing has not been a problem with common carriers. There is no reason to propose new requirements in the absence of a demonstration that a problem exists. This is especially true when the proposed fix of a non-problem would impose new administrative burdens on carriers and the Commission alike.

U S WEST therefore opposes any loading requirements imposed on common carrier use of wideband channels. If a warehousing problem ever does arise, it is better addressed on an exception basis — that is, through a complaint proceeding.

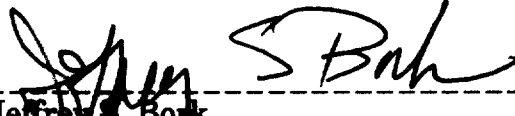
**5. The Commission Must Act Promptly.** It bears repeating that the purpose of this proceeding is to open spectrum for use by the new set of personal communications services. The public interest is served by making the 2 GHz band available to these new and exciting services as soon as possible.

The Commission has properly determined that current 2 GHz users should not be reallocated to other bands until arrangements are in place to ensure that the other bands provide equivalent service with comparable reliability. Several reallocation proposals have been submitted, and dozens of comments have been received. The Compromise Plan recently submitted by Alcatel addresses the multitude of issues in a way that is both spectrally efficient and equitable to all vendors and users involved. The early adoption of the Compromise Plan is imperative. The sooner current 2 GHz users are capable of moving to other bands, the sooner carriers can access the 2 GHz

band in the provision of new personal communications services to the public.

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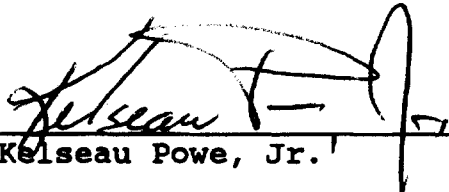
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**CERTIFICATE OF SERVICE**

I, Kelseau Powe, Jr., do hereby certify that on this 14th day of June, 1993, I have caused a copy of the foregoing U S WEST SUPPLEMENTAL COMMENTS to be served via first-class United States Mail, postage prepaid, upon the persons listed on the attached service list.

  
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